

REMARKS

Claims 1-21 are pending in the present application. Claims 1-21 have been rejected. In the above amendments, claim 21 has been amended to correct typographical errors.

Applicants respectfully respond to this Office Action.

A. Claims 1-21 Rejected under 35 U.S.C. § 103(a)

In the Office Action mailed 11/05/2003, the Examiner rejected claims 1-21 under 35 U.S.C. § 103(a) as being unpatentable over Manning et al., U.S. Patent No. 6,580,699 (hereinafter, "Manning") in view of Dynarski et al., U.S. Patent No. 6,628,671 (hereinafter "Dynarski"). This rejection is respectfully traversed.

The M.P.E.P. states that

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure.

The initial burden is on the examiner to provide some suggestion of the desirability of doing what the inventor has done. To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references.

M.P.E.P. § 2142. A *prima facie* case of obviousness has not been established regarding claims 1-21 because the prior art cited does not teach or suggest all the claim limitations.

Claim 1 recites a method that includes the step of “transmitting from the mobile station a message including a number of dormant network connections associated with the mobile station and a list of identifiers associated with the dormant network connections.” The prior art cited does not teach or suggest these claim limitations.

Applicants respectfully disagree with the Examiner’s characterization of Manning as teaching the dormant mode as recited in Applicants’ claims and supported by Applicants’ originally filed specification. Manning refers to when the mobile is sleeping. See Manning, col. 5, lines 54-56. This is not the same as a dormant PPP instance as taught in Applicants’ specification, page 9, lines 4-14. The PPP instances become dormant when the MS moves to a new PDSN. Manning does not teach dormant PPP instances as in Applicants’ claims.

The Examiner has asserted that Dynarski discloses this claim element. See Office Action, Page 3. As shown, Dynarski discloses dormant network connections but does not disclose the following claim limitations: “transmitting from the mobile station a message including a number of dormant network connections associated with the mobile station and a list of identifiers associated with the dormant network connections.”

The Abstract of Dynarski states the following:

The network access server has a PPP session with the remote client go dormant, for example when the user is a wireless user and goes out of range of a radio tower and associated base station. The network access server does not get rid of the PPP state for the dormant session, but rather switches that PPP state to a new session, such as when the client moves into range of a different radio tower and associated base station and initiates a new active session on the interface to the wireless network

Dynarski, Abstract. In describing the prior art, Dynarski states:

The known prior art has failed to recognize that if a PPP session for a user goes dormant and the user then connects to a different IWU (or to a different port in the same IWU), that the PPP negotiated parameters and the state for a call which is currently going dormant can be used to make the new PPP connection, without repeating the lengthy PPP negotiations.

Id., Col. 2, lines 14-20. Dynarski continues as follows:

In our invention, however, the PPP state from the dormant PPP session (i.e., no active data transfer but the PPP session is still active) is switched over to the new, active PPP session, without requiring re-negotiation of the PPP parameters. Moreover, the switching of the PPP state can occur without the mobile communications device having to disconnect and reconnect its PPP session. To the mobile unit, it is unaware that its calls have been handed off between base stations and between network access servers/IWUs. Thus, the invention can provide essentially continuous, uninterrupted access to the IP data network regardless of where the user may move within the wireless network.

Id., Col. 2, lines 27-39.

Although the above from Dynarski discloses dormant PPP sessions, it still does not teach or suggest “transmitting from the mobile station a message including a number of dormant network connections associated with the mobile station and a list of identifiers associated with the dormant network connections” from Claim 1. In fact, Dynarski teaches away from these claim limitations because it teaches that the network access server uses this information or provides this information, which it already has, rather than having the mobile station transmit it, as in Applicant’s claimed invention. Having the mobile station transmit such a message would be unnecessary which would consume valuable resources. Thus, Dynarski teaches away from such a combination. The following excerpts from Dynarski illustrate this distinction.

Dynarski recognizes that at “some later point in time, the PPP session thereafter becomes dormant, but the PPP state is not removed from the network access server.” Id., Col. 3, lines 19-21. Then the description of Dynarski states that the network access server finds the dormant PPP session as follows:

The network access server then uses the information uniquely identifying the device to identify and find the dormant PPP session associated with the first port in the network access server. For example, the network access server may contain a general purpose computing engine and memory maintaining a table mapping ISMI/ESN numbers to a particular port, with the table indicating whether the particular port is active or dormant. In this fashion, the network access server can avoid re-negotiation of the PPP protocols and instead use the PPP state from the dormant session.

Id., Col. 3, lines 60-67 – Col. 4, lines 1-3. Dynarski states that the PPP state is stored in the network access server as follows:

The PPP session between the device 14 and the network access server 24 is associated with a PPP state in the network access server. At some point, e.g., when the device 14 goes out of range of base station 18A, the PPP session thereafter becomes dormant but the PPP state is not removed from the network access server 24A. Again, the PPP state is a set of parameters that include negotiated PPP protocols, the options in use, as well as certain variables that change as the connection exchanges data and PPP control packets. The PPP state for any particular link is a software structure stored in both a gateway or routing card in the network access server 24A that implements the PPP protocol stack, and in the wireless device.

Id., Col. 6, lines 54-67. In the following the network access server signals software (in the network access server) that the call has gone dormant, but the information is not removed.

Specifically, when the mobile device 14 goes out of range of the tower 18A, the base station 20A signals, using wireless call signaling procedures, to the network access server 24A that the call is going dormant. The network access server 24A signals the PPP component (a software module and the PPP stack in the router or gateway card in the network access server 24A) that the call has gone dormant and the PPP component marks the PPP session as dormant and does not remove its state.

Id., Col. 7, lines 5-13.

As shown by the following, in Dynarski the PPP state is already established and still existing in the network access server 24A and is simply transferred to the session associated with the new call set-up message.

When the device comes into range of radio tower 18B, a new PPP link is established between the device 14, tower 18B and a second port in the network access server 24A in accordance with a preferred embodiment of this invention. More particularly, the base station 20B sends a new call set-up message associated with the device 14 to the network access server 24A via frame relay line 22, where it is received at a second port in the network access server 24A. Rather than renegotiate the PPP, LCP and NCP protocols, the present invention takes advantage of the fact that the PPP state for the dormant session can be switched to the new session associated with new call set-up message received at the second port. The PPP state, already established and still existing in the network access server 24A, is transferred to the session associated with the new call set-up message and the negotiation of link control protocols or network control protocols between the device 14 and network access server 24A may be avoided.

Id., Col. 7, lines 14-30.

The following clearly shows that in Dynarski the network access server identifies the dormant PPP session and then "context switches" the PPP state using the dormant PPP session.

Further, the network access server uses the information uniquely identifying the device 14 to identify and find the dormant PPP session associated with the first port in the network access server. For example, the RADIUS server 28A returns an access-accept message with a RADIUS attribute which contains the IMSI/ESN number. That number can be used in the network access server 24A to find the dormant PPP session (such as by the network access server 24A maintaining a table mapping IMSI/ESN numbers to PPP sessions).

The network access server 24A then "context switches" the PPP state from the dormant Point-to-Point Frame Relay interface to the active Frame Relay Point-to-Point interface. The PPP module that is controlling the newly-opened connection has its PPP "state" variables populated with copies of those variables in the dormant PPP session.

Id., Col. 7, lines 50-65. Dynarski further restates that it is the network access server that finds the dormant PPP session and switches the PPP state as follows:

The network access server 24A uses that information to find the dormant PPP session, and switches the PPP state associated with the dormant PPP session to the session associated with the access-request message. Thus, the PPP state may be transferred to the new session and the negotiation of link control protocols or network control protocols between the device 14 and the network access server 24A may be avoided. A similar process can be used for transferring an active PPP state among different network access servers, as described above.

Id., Col. 9, lines 26-35.

As shown through the above, Dynarski does not teach or suggest "transmitting from the mobile station a message including a number of dormant network connections associated with

the mobile station and a list of identifiers associated with the dormant network connections" from Claim 1. In fact, Dynarski teaches away from these claim limitations because it teaches that the network access server uses this information or provides this information, which it already has, rather than having the mobile station transmit it, as in Applicant's claimed invention. Having the mobile station transmit such a message would be unnecessary which would consume valuable resources. Thus, Dynarski teaches away from such a combination. Thus, a *prima facie* case of obviousness has not been established regarding claim 1 because the prior art cited does not teach or suggest all the claim limitations and because there is no suggestion or motivation to modify the reference or to combine reference teachings as the Examiner has suggested.

Claims 2-5 depend directly or indirectly from claim 1. Thus, Applicants respectfully request that the rejection of claims 2-5 be withdrawn for at least the same reasons.

Claim 6 recites a mobile station comprising a "processor-readable medium accessible by the processor and containing a set of instructions executable by the processor to modulate and transmit from the mobile station a message including a number of dormant network connections associated with the mobile station and a list of identifiers associated with the dormant network connections." As argued above, the prior art cited does not teach or suggest these claim limitations.

Claims 7-10 depend directly or indirectly from claim 6. Thus, Applicants respectfully request that the rejection of claims 7-10 be withdrawn for at least the same reasons.

Claim 11 recites a mobile station that comprises a "device configured to transmit from the mobile station a message including a number of dormant network connections associated with the mobile station and a list of identifiers associated with the dormant network connections." As argued above, the prior art cited does not teach or suggest these claim limitations.

Claims 12-15 depend directly or indirectly from claim 11. Thus, Applicants respectfully request that the rejection of claims 12-15 be withdrawn for at least the same reasons.

Claim 16 recites a mobile station that comprises "means for transmitting from the mobile station a message including a number of dormant network connections associated with the mobile station and a list of identifiers associated with the dormant network connections." As argued above, the prior art cited does not teach or suggest these claim limitations.

Claims 17-20 depend directly or indirectly from claim 16. Thus, Applicants respectfully request that the rejection of claims 17-20 be withdrawn for at least the same reasons.

Claim 21 recites the limitation of "means for transmitting from the mobile station a message including a number of dormant IP instances associated with the mobile station and a list of identifiers associated with the dormant IP instances." As argued above, the prior art cited does not teach or suggest these claim limitations.

REQUEST FOR ALLOWANCE

In view of the foregoing, Applicants submit that all pending claims in the application are patentable. Accordingly, reconsideration and allowance of this application are earnestly solicited. Should any issues remain unresolved, the Examiner is encouraged to telephone the undersigned at the number provided below.

Respectfully submitted,

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